



81th International Scientific
Conference of the
University of Latvia 2023

CHEMISTRY SECTION AND SECTION OF INSTITUTE OF CHEMICAL PHYSICS

BOOK OF ABSTRACTS



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SYNTHETIC PATHWAYS TOWARDS PURINE DERIVATIVE AS A POTENTIAL MOLECULAR SYSTEM FOR THE PHOTO-CATALYSIS

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Fluorescent purine derivatives have a variety of uses in analytics, such as metal ion [1] and pH sensors [2], as well they are used for cell imaging [3] and as photo-catalysts [4].

Target purine compound **2** was designed with an aim to be used as a potential system for photo-catalysis. For the synthesis of **2**, derivatization of C(6), C(8) and N(9) positions of 6-chloropurine (**1**) with **A**, **B** and **C** moieties is required. Several synthetic pathways were designed and have been tested. In the end, target compound **2** was obtained, using the combinations of S_NAr , S_N2 , CuAAC, C-C metal catalyzed coupling, alkylation and Mitsunobu reactions and these results will be discussed.

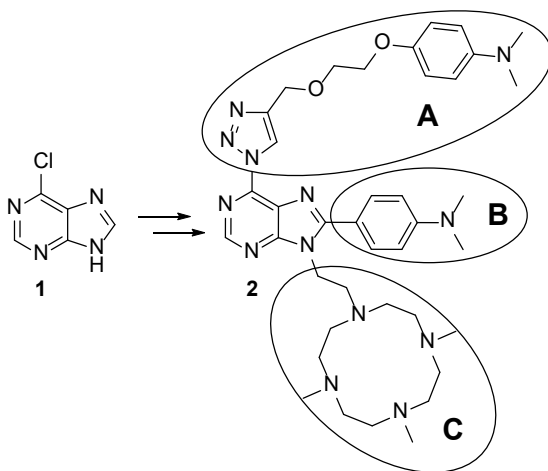


Fig. Starting material **1** and target compound **2**.

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